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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,987	03/31/2004	Chien-Sen Weng	E0523-00065	5942

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DUANE MORRIS, LLP  
IP DEPARTMENT  
30 SOUTH 17TH STREET  
PHILADELPHIA, PA 19103-4196

EXAMINER

TSEGAYE, DANIEL

ART UNIT PAPER NUMBER

2609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/813,987

Applicant(s)

WENG, CHIEN-SEN

Examiner

DANIEL TSEGAYE

Art Unit

2609

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03/31/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03/31/2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/31/2004</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Drawings*

1. *Figs 1A-2B are objected to because lines, numbers and letters are not uniform and well define. Figs. 1A-2B are hand drawings with poor quality.*

### **Claim Rejections - 35 USC § 103**

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2-3, 5,6-7, 9,10-11 and 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art (Fig.1C) in view of Shimizu (U.S.Pat# 7,021,158).

As to claim 1, the Prior Art discloses a sensing pixel of a thin film transistor-based resistive-type fingerprinting touch screen panel (100) (see page 1, paragraph [0003]) the sensing pixel comprise: a thin film transistor (102) having a poly-si film layer (30) forming a channel region (see page 1, paragraph [0004]) and at least one drain electrode (33) connecting the poly-si film layer to a contact metal pad (34)(see Fig. 1C). The prior art teaches a sensing electrode (40) connected to the contact metal pad through a via (37). The Prior Art does not teach at least a portion of the via overlaps the poly-si film layer when viewed through the sensing electrode. Shimizu teaches a sensing electrode (4b) connected to the contact metal pad (9a) through a via (v-shaped

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electrode), wherein at least a portion of the via (v-shaped) overlaps the poly-si film layer (active layer 11; col. 4, lines 14-15, line 51) when viewed through the sensing electrode (i.e. the left side of v-shaped electrode overlaps poly-si film 11) (see Fig. 3A).

Therefore, it would have obvious to one of ordinary skill in the art at time the invention was made to have provided at least a portion of the via sensing electrode overlapping the poly-si film layer when viewed through the sensing electrode as taught by Shimizu to the thin film transistor of the Prior Art because the sensing electrode with via of shimizu would prevent TFT from fast deteriorate because of continuous of scanning (see col. 2, lines 5-11 of Shimizu).

As to claim 5, the claim is different from claim 1 only in that the limitations "an upper substrate" and "lower substrate" are additionally recited. The Prior Art teaches, the touch screen panel claim 5 comprises: an upper substrate (150); a lower substrate (110) beneath the upper substrate, wherein the lower substrate comprises an array of thin film transistor-based sensing pixels (see [0003]).

As to claim 9, the claim is different from claim 5 only in that the limitation "a LCD panel" and "backlight" are additionally recited. The Prior Art teaches, the touch screen panel comprises: a LCD panel (300); a backlight (310) for the LCD panel (see Fig. 1A and [0003]).

As to claims 2,6 and 10, Shimizu teaches a substantial portion of the via (v-shaped electrode) overlapping the poly-si film layer (11) when viewed through the sensing electrode (see Fig. 3A).

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As to claims 3,7 and 11, the Prior Art teaches the sensing electrode (112) comprising indium tin oxide or indium zinc oxide (see [0003]).

As to claims 13, 14 and 15, the Prior Art teaches the sensing electrode being transparent (see paragraph [0003]).

As to claims 16 and 17, the Prior Art teaches the upper substrate (150) is made of PET (see [0003]).

4. Claims 4,8 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art and Shimizu as applied to claims 1-3,5-7,9-11 and 13-17 above, and further in view of den Boer (U.S Pat#5,641,974).

As to claims 4,8 and 12, the Prior Art and Shimizu do not teach the sensing pixel having an aperture ratio of greater than 80%. den Boer teaches the liquid crystal pixel having an aperture ratio being at least about 65%. Thus, it is clear that den Boer teaches the aperture ratio being from 65% to 100%, which depends upon the pixel pitch (see col.6, lines 57-62).

Therefore, it would have obvious to one of ordinary skill in the art at time the invention was made to have provided the sensing pixel having an aperture ratio of greater than 80% as taught by den Boer to touch screen panel of the Prior art as modified by Shimizu because layer is disposed between pixel electrode and the overlapped address lines, the capacity cross talk problem, substantially reduced or eliminated and increased pixel opening (see col.6, lines 51-56).

### Conclusion

5. The prior art made or record and not relied upon is considered pertinent to applicant's disclosure.

Ohmi (U.S. Pub No.2003/0206265 A1) and Yoo (U.S. Pat No6, 642972 B2) are cited to teach TFT sensing pixels.

Takahara (U.S. Pat No 6, 005,651) is cited to teach the aperture ratio of 80% or more (see col. 6, lines 37-40)

### Inquiries


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL TSEGAYE whose telephone number is 571 270-1715. The examiner can normally be reached on Monday-Friday, 8:00-5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHANH NGUYEN can be reached on 571 272 7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

D Tsegaye  
01/07/2007

  
CHANH D. NGUYEN  
SUPERVISORY PATENT EXAMINER